

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Hwang et al.

Serial No.: Unknown

Confirmation No.: Unknown

Filed: Herewith

For: Expression of Zebrafish
Bone Morphogenetic
Protein 4

§§§§§
Group Art Unit: Unknown

§§§§§
Examiner: Unknown

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

CERTIFICATE OF MAILING 37 CFR 1.10	
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7/1/03 Date	 Signature

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The Applicants, and the Attorney who signs below on the basis of the information supplied by the inventor and the information in his file, submit herewith patents, publications, or other information of which they are aware, which may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

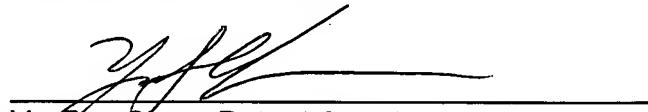
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The patents and/or publications submitted herewith are set forth on the attached Form PTO-1449.

If the sum of \$180.00 is due under 37 CFR § 1.17(p) pursuant to § 1.97, the Commissioner is hereby authorized to charge this fee, and any other fee necessary to make this submission timely, to the Deposit Account No. 20-0782/ACAD/0002/BTP.

Respectfully submitted,



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U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
	A1	6,083,690	07/04/00	Harris et al.	435	6	06/02/95
	A2	6,159,696	12/12/00	Dijkema et al.	435	6	11/20/97
	A3	6,379,961	04/30/02	Jessell et al.	435	377	09/20/96
	A4	6,458,944	10/01/02	Kawai et al.	536	23.5	04/22/99
	A5	6,475,735	11/05/02	Sugiura	435	6	04/22/99

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*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
	B1	Alexander, et al., "Screening Mosaic F1 Females for Mutations Affecting Zebrafish Heart Induction and Patterning", <u>Dev. Genet.</u> , 22:288-299 (1998)
	B2	Amsterdam et al., "The Aequorea Victoria green fluorescent protein can be used as a reporter in live zebrafish embryos", <u>Dev. Biol.</u> , 171:123-129 (1995)
	B3	Blader et al., "Cleavage of the BMP-4 Antagonist Chordin by Zebrafish Tollid", <u>Science</u> , 278:1937-1940 (1997)
	B4	Carvajal et al., "A BAC transgenic analysis of the Mrf4/Myf5 locus reveals interdigitated elements that control activation and maintenance of gene expression during muscle development", <u>Development</u> , 128:1857-1868 (2001)
	B5	Chen et al., "Left-right pattern of cardiac BMP4 may drive asymmetry of the heart in zebrafish", <u>Development</u> , 124:4373-4382 (1997)
	B6	Chin et al., "Bone morphogenetic protein-4 expression characterizes inductive boundaries in organs of developing zebrafish", <u>Dev. Genes. Evol.</u> , 202:107-114 (1997)
	B7	Culp et al., "High-frequency germ-line transmission of plasmid DNA sequences injected into fertilized zebrafish eggs", <u>Proc. Natl. Acad. Sci. USA</u> , 88:7953-7957 (1991)
	B8	Donovan et al., "Rapid Purification of Bacteriophage λ DNA", <u>BioTechniques</u> , 15:602:603 (1993)
	B9	Feng et al., "The mouse bone morphogenetic protein-4 gene: analysis of promoter utilization in fetal rat calvarial osteoblasts and regulation by COUP-TFI orphan receptor", <u>J. Biol. Chem.</u> , 270:28364-28373 (1995)
	B10	Fu et al., "Viral sequences enable efficient and tissue-specific expression of transgenes in <i>Xenopus</i> ", <u>Nature Biotech.</u> , 16:253:257 (1998)

Examiner	Date Considered
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*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.					
	B11	Gaussin et al., "Endocardial cushion and myocardial defects after cardiac myocyte-specific conditional deletion of the bone morphogenetic protein receptor ALK3", <u>Proc. Natl. Acad. Sci. USA</u> , 99:2878-2883 (2002)					
	B12	Gong, Z. and Hew, C., "Transgenic Fish in Aquaculture and Developmental Biology", <u>Curr. Topics Dev. Biol.</u> , 30:177-214 (1995)					
	B13	Hammerschmidt et al., "Genetic analysis of dorsoventral pattern formation in the zebrafish: requirement of a BMP-like ventralizing activity and its dorsal repressor", <u>Genes. Dev.</u> , 10:2452-2461 (1996)					
	B14	Hogan, B., "Bone morphogenic proteins in development", <u>Curr. Opin. Genet. Dev.</u> , 6:432-438 (1996a)					
	B15	Hogan, B., "Bone morphogenic proteins: multifunctional regulators of vertebrate development", <u>Curr. Opin. Genet. Dev.</u> , 10:1580-1594 (1996b)					
	B16	Hsiao et al., "Enhanced Expression and Stable Transmission of Transgenes Flanked by Inverted Terminal Repeats From Adeno-Associated Virus in Zebrafish", <u>Dev. Dynam.</u> , 220:323-336 (2001)					
	B17	Hu, et al., "Structure and Function of the Developing Zebrafish Heart", <u>Anatom. Rec.</u> , 260:148-157 (2000)					
	B18	Hwang et al., "The Zebrafish BMP4 Gene: Sequence Analysis and Expression Pattern During Embryonic Development", <u>DNA Cell Biol.</u> , 16:1003-1011 (1997)					
	B19	Jones et al., "Involvement of Bone Morphogenetic Protein-4 (BMP-4) and Vgr-1 in morphogenesis and neurogenesis in the mouse", <u>Development</u> , 111:531-542 (1991)					
	B20	Ju et al., "Faithful Expression of Green Fluorescent Protein (GFP) in Transgenic Zebrafish Embryos Under Control of Zebrafish Gene Promoters", <u>Dev. Genet.</u> , 12:158-167 (1999)					
	B21	Marini et al., "Persistence and Replication of Plasmid DNA Microinjected into Early Embryos of <i>Xenopus laevis</i> ", <u>Dev. Biol.</u> , 127:421-434 (1988)					
	B22	Martinez-Barbera et al., "Cloning and expression of three members of the zebrafish Bmp family: Bmp2a, Bmp2b and Bmp 4", <u>Gene</u> , 198:53-59 (1997)					

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	B23	Mowbray et al., "Expression of BMP signalling pathway members in the developing zebrafish inner ear and lateral line", <u>Mechanisms of Development</u> , 108:179-184 (2001)
	B24	Muller et al., "Intronic enhancers control expression of zebrafish <i>sonic hedgehog</i> in floor plate and notochord", <u>Development</u> , 126:2103-2116 (1999)
	B25	Nikaido et al., "Conservation of BMP signaling in zebrafish mesoderm patterning", <u>Mechanisms of Development</u> , 61:75-88 (1997)
	B26	Ozkaynak et al., "Osteogenic Protein-2", <u>J. Biol. Chem.</u> , 267:25220-25227 (1992)
	B27	Park et al., "Analysis of Upstream Elements in the <i>HuC</i> Promoter Leads to the Establishment of Transgenic Zebrafish with Fluorescent Neurons", <u>Dev. Bio.</u> , 227:279-293 (2000)
	B28	Schilling et al., "Regulation of Left-Right Asymmetries in the Zebrafish by <i>Shh</i> and <i>BMP4</i> ", <u>Dev. Bio.</u> , 210:277-289 (1999)
	B29	Schultheiss et al., "A role for bone morphogenetic proteins in the induction of cardiac myogenesis", <u>Genes & Dev.</u> , 11:451-462 (1997)
	B30	Shafizadeh et al., "Transgenic Zebrafish Expressing Green Fluorescent Protein", <u>Methods in Molecular Biology</u> , 183:225-233
	B31	Stuart et al., "Replication, integration and stable germ-line transmission of foreign sequences injected into early zebrafish embryos", <u>Development</u> , 103:403-412 (1988)
	B32	Stuart et al., "Stable lines of transgenic zebrafish exhibit reproducible patterns of transgene expression", <u>Development</u> , 109:577-584 (1990)
	B33	Van den Wijngaard et al., "Genomic Organization of the Human Bone Morphogenetic Protein-4 Gene: Molecular Basis for Multiple Transcripts", <u>Biochem. And BioPhys. Res. Comm.</u> , 219:789-794 (1996)
	B34	Yelon et al., "Patterning during organogenesis: genetic analysis of cardiac chamber formation", <u>Cell & Dev. Bio.</u> , 10:93-98 (1999)

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